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(Original Signature of Member)

117TH CONGRESS
1ST SESSION

H. R. _____

To require the Secretary of Energy to revitalize existing university infrastructure relating to nuclear science and engineering and establish new university-based nuclear science and engineering facilities, and for other purposes.

Mr. GONZALEZ of Ohio introduced the following bill; which was referred to the Committee on _____

A BILL

To require the Secretary of Energy to revitalize existing university infrastructure relating to nuclear science and engineering and establish new university-based nuclear science and engineering facilities, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “National Nuclear Uni-
5 versity Research Infrastructure Reinvestment Act of
6 2021”.

1 **SEC. 2. PURPOSES.**

2 The purposes of this Act are—

3 (1) to upgrade the nuclear research capabilities
4 of universities in the United States to meet the re-
5 search requirements of advanced nuclear energy sys-
6 tems;

7 (2) to ensure the continued operation of univer-
8 sity research reactors;

9 (3) to coordinate available resources to enable
10 the establishment, including the start and efficient
11 completion of construction, of new nuclear science
12 and engineering facilities; and

13 (4) to support—

14 (A) workforce development critical to
15 maintaining United States leadership in nuclear
16 science and engineering and related disciplines;
17 and

18 (B) the establishment or enhancement of
19 nuclear science and engineering capabilities and
20 other, related capabilities at historically Black
21 colleges and universities, Tribal colleges or uni-
22 versities, minority-serving institutions, EPSCoR
23 universities, junior or community colleges, and
24 associate-degree-granting colleges.

1 **SEC. 3. UNIVERSITY INFRASTRUCTURE COLLABORATION.**

2 Section 954(a) of the Energy Policy Act of 2005 (42
3 U.S.C. 16274(a)) is amended—

4 (1) in paragraph (2), by amending subpara-
5 graph (D) to read as follows:

6 “(D) promote collaborations, partnerships,
7 and knowledge sharing between institutions of
8 higher education, National Laboratories, indus-
9 try, and associated labor unions; and”;

10 (2) by amending paragraph (4) to read as fol-
11 lows:

12 “(4) STRENGTHENING UNIVERSITY RESEARCH
13 AND TRAINING REACTORS AND ASSOCIATED INFRA-
14 STRUCTURE.—

15 “(A) IN GENERAL.—In carrying out the
16 program under this subsection, the Secretary
17 may support—

18 “(i) converting research reactors from
19 high-enrichment fuels to low-enrichment
20 fuels and upgrading operational instrumen-
21 tation;

22 “(ii) revitalizing and upgrading exist-
23 ing nuclear science and engineering infra-
24 structure that support the development of
25 advanced nuclear technologies and applica-
26 tions;

1 “(iii) regional or subregional univer-
2 sity-led consortia to—

3 “(I) broaden access to university
4 research reactors;

5 “(II) enhance existing university-
6 based nuclear science and engineering
7 infrastructure; and

8 “(III) provide project manage-
9 ment, technical support, quality engi-
10 neering and inspections, manufac-
11 turing, and nuclear material support;

12 “(iv) student training programs, in
13 collaboration with the United States nu-
14 clear industry, in relicensing and upgrad-
15 ing reactors, including through the provi-
16 sion of technical assistance; and

17 “(v) reactor improvements that em-
18 phasize research, training, and education,
19 including through the Innovations in Nu-
20 clear Infrastructure and Education Pro-
21 gram or any similar program.

22 “(B) AUTHORIZATION OF APPROPRIA-
23 TIONS.—Of any amounts appropriated to carry
24 out the program under this subsection, there is
25 authorized to be appropriated to the Secretary

1 to carry out clauses (ii) and (iii) of subpara-
2 graph (A) \$55,000,000 for each of fiscal years
3 2022 through 2026.”.

4 **SEC. 4. ADVANCED NUCLEAR RESEARCH INFRASTRUCTURE**
5 **ENHANCEMENT SUBPROGRAM.**

6 Section 954(a) of the Energy Policy Act of 2005 (42
7 U.S.C. 16274(a)), as amended by section 3, is further
8 amended—

9 (1) by redesignating paragraphs (5) through
10 (8) as paragraphs (6) through (9), respectively;

11 (2) by inserting after paragraph (4) the fol-
12 lowing:

13 “(5) ADVANCED NUCLEAR RESEARCH INFRA-
14 STRUCTURE ENHANCEMENT.—

15 “(A) IN GENERAL.—The Secretary shall
16 carry out a subprogram to be known as the Ad-
17 vanced Nuclear Research Infrastructure En-
18 hancement Subprogram in order to—

19 “(i) demonstrate various advanced nu-
20 clear reactor and nuclear microreactor con-
21 cepts;

22 “(ii) establish medical isotope produc-
23 tion reactors or other specialized applica-
24 tions; and

1 “(iii) advance other research infra-
2 structure that, in the determination of the
3 Secretary, is consistent with the mission of
4 the Department.

5 “(B) NEW NUCLEAR SCIENCE AND ENGI-
6 NEERING FACILITIES.—In carrying out the sub-
7 program, the Secretary shall establish—

8 “(i) not more than 4 new research re-
9 actors; and

10 “(ii) new nuclear science and engi-
11 neering facilities, as required to address re-
12 search demand and identified infrastruc-
13 ture gaps.

14 “(C) LOCATIONS.—New research reactors
15 and facilities established under subparagraph
16 (B) shall be established in a manner that—

17 “(i) supports the regional or sub-
18 regional consortia described in paragraph
19 (4)(C); and

20 “(ii) encourages the participation of—

21 “(I) historically Black colleges
22 and universities;

23 “(II) Tribal colleges or univer-
24 sities;

1 “(III) minority-serving institu-
2 tions;

3 “(IV) EPSCoR universities;

4 “(V) junior or community col-
5 leges; and

6 “(VI) associate-degree-granting
7 colleges.

8 “(D) AUTHORIZATION OF APPROPRIA-
9 TIONS.—Of any amounts appropriated to carry
10 out the program under this subsection, there
11 are authorized to be appropriated to the Sec-
12 retary to carry out the subprogram under this
13 paragraph—

14 “(i) \$10,000,000 for fiscal year 2022;

15 “(ii) \$45,000,000 for fiscal year 2023;

16 “(iii) \$60,000,000 for fiscal year
17 2024;

18 “(iv) \$65,000,000 for fiscal year
19 2025;

20 “(v) \$80,000,000 for fiscal year 2026;

21 “(vi) \$140,000,000 for fiscal year
22 2027;

23 “(vii) \$120,000,000 for fiscal year
24 2028; and

1 “(viii) \$80,000,000 for fiscal year
2 2029.”; and

3 (3) by amending paragraph (9), as redesignated
4 by paragraph (1) of this subsection, to read as fol-
5 lows:

6 “(9) DEFINITIONS.—In this subsection:

7 “(A) ASSOCIATE-DEGREE-GRANTING COL-
8 LEGE.—The term ‘associate-degree- granting
9 college’ means an institution of higher edu-
10 cation (as determined under section 101 of the
11 Higher Education Act of 1965 (20 U.S.C.
12 1001)) that—

13 “(i) is a nonprofit institution that of-
14 fers a 2-year associate-degree program or a
15 2-year certificate program; or

16 “(ii) is a proprietary institution that
17 offers a 2-year associate degree program.

18 “(B) JUNIOR FACULTY.—The term ‘junior
19 faculty’ means a faculty member who was
20 awarded a doctorate less than 10 years before
21 receipt of an award from the grant program de-
22 scribed in paragraph (2)(B).

23 “(C) JUNIOR OR COMMUNITY COLLEGE.—
24 The term ‘junior or community college’ has the
25 meaning given the term in section 312 of the

1 Higher Education Act of 1965 (20 U.S.C.
2 1058).

3 “(D) EPSCoR UNIVERSITY.—The term
4 ‘EPSCoR university’ means an institution of
5 higher education located in a State eligible to
6 participate in the program defined in section
7 502 of the America COMPETES Reauthoriza-
8 tion Act of 2010 (42 U.S.C. 1862p note).

9 “(E) HISTORICALLY BLACK COLLEGE OR
10 UNIVERSITY.—The term ‘historically Black col-
11 lege or university’ has the meaning given the
12 term ‘part B institution’ in section 322 of the
13 Higher Education Act of 1965 (20 U.S.C.
14 1061).

15 “(F) MINORITY-SERVING INSTITUTION.—
16 The term ‘minority-serving institution’ means a
17 Hispanic-serving institution, an Alaska Native-
18 serving institution, a Native Hawaiian-serving
19 institutions, a Predominantly Black Institution,
20 an Asian American and Native American Pa-
21 cific Islander-serving institution, or a Native
22 American-serving nontribal institution as de-
23 scribed in section 371 of the Higher Education
24 Act of 1965 (20 U.S.C. 1067q(a)).

1 “(G) TRIBAL COLLEGE OR UNIVERSITY.—
2 The term ‘Tribal college or university’ has the
3 meaning given such term in section 316 of the
4 Higher Education Act of 1965 (20 U.S.C.
5 1059c).”.